ROANOKE

January 12, 2016

ADDENDUM NO. 1 TO ALL BIDDERS:

Invitation to Bid: ITB# 16-06-01

Description: Connection of Garden City Greenway to Roanoke River Greenway

Dated: December 17, 2015

For Delivery to: Purchasing Division, City of Roanoke, Virginia

Bids Due: January 28, 2016

ALL BIDDERS NOTE THE FOLLOWING CHANGES, MODIFICATIONS OR ADDITIONS TO THE SPECIFICATIONS AND SUBMIT QUOTATIONS IN ACCORDANCE THEREWITH:

Addendum No. 1 shall be attached and made a part of the above referenced project dated December 17, 2015. Specifications for the project are hereby revised as follows:

1. Bid Form

Delete in its entirety the Bid Form (document) and replace with the Revised Bid Form attached to this addendum, dated January 12, 2016. BIDDERS ARE CAUTIONED THAT THE REVISED BID FORM MUST BE USED IN SUBMITTING A BID FOR THE PROJECT.

Bid form is revised to omit the requirement for micropile testing.

2. Technical Specifications, Section 02450 Micropiles

The specification for Micropiles is revised to omit Section 3.4 Pile Load Test requirement for micropile testing. Revised Section 02450 attached.

3. Section 05200, Prefabricated Pedestrian Bridge, Part 1, Section 1.06, Qualified Suppliers, Item D.

Item D is revised as follows: Other manufacturers may be used with the approval of the Engineer. Contractor shall submit appropriate documentation verifying bridge manufacturer's compliance with the above stated specifications. **Suppliers identified herein are stated simply to impart the quality of product desired by the City and are not intended to restrict competition. Bidders are not limited to the suppliers designated. The City of Roanoke will not preapprove suppliers prior to the submission bids. Bridge manufacturer proposed by Contractor must comply with the specifications stated herein. Approval of qualified suppliers will be determined at the drawing submittal phase.**

Note: A signed acknowledgement of this addendum should be received at the location indicated on the ITB either prior to the due date and hour or attached to your bid. Signature on this addendum does not substitute for your signature on the original solicitation document. The original solicitation document must be signed.

Very truly yours,

Monica Cole
Senior Buyer
Phone: 540-853-2871

_____
Name of Firm

_____ _____
Signature / Title Date

CITY OF ROANOKE, VIRGINIA

REVISED BID FORM

DATE:_____

SUBMITTED BY:_____
(Exact Legal Name of Bidder)

NOTE: ALL PAGES OF THE BID FORM ARE TO BE INCLUDED IN THE COMPLETED BID. ALSO, BIDS CONTAINING ANY CONDITIONS, OMISSIONS, UNEXPLAINED ERASURES, ALTERATIONS OR ITEMS NOT CALLED FOR IN THE BID, OR IRREGULARITIES OF ANY KIND, MAY BE REJECTED BY THE CITY AS BEING NON-RESPONSIVE. NO CHANGES ARE TO BE MADE TO THE BID FORM. ANY CHANGES TO A BID AMOUNT MUST BE INITIALED BY THE AUTHORIZED PERSON SIGNING THE BID FORM.

The undersigned hereby proposes and agrees, if this bid is accepted by the City of Roanoke, to enter into a Contract with the City of Roanoke, Virginia, (hereafter - City or Owner) to furnish all equipment, materials, labor, and services necessary to construct a pedestrian bridge, curb ramps, trail, pedestrian signals and crosswalks, with associated work in Connection of the Garden City Greenway to the Roanoke River Greenway, ITB No.16-06-01, in accordance with the Contract Documents as prepared by the City of Roanoke, Virginia.

The quantities of work to be done at the unit prices indicated are approximate only and are intended principally to serve as a guide in evaluating bids. Subject to the constraints of the General Conditions and other Contract Documents, the quantities of work to be done and material furnished at the unit prices bid may be increased or decreased as considered necessary by the City Engineer to fully complete the Work as planned.

BASE BID SCHEDULE

ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	TOTAL AMOUNT
Mobilization	1	LS		
Construction Stakeout Survey	1	LS		
Maintenance of Traffic and Work Area Protection	1	LS		
Erosion and Sediment Control	1	LS		
Demolition	1	LS		
Clearing and Grubbing	1	LS		
Utility Relocation	1	LS		
Earthwork	1	LS		
Micropiles, Overburden	600	LF		
Micropiles, Rock	100	LF		
Concrete bridge abutments, complete in place	2	EA		
Prefabricated Pedestrian Bridge F&I	1	EA		
EW-1 Endwall	2	EA		
15" RCP Storm Pipe	45	LF		
Curb and gutter	24	LF		
Curb	73	LF		
Curb ramp w/ (5) 2' detectable warning surfaces	3	EA		
Asphalt Trail	540	SF		
Pedestrian Signal System	1	LS		
Wood Fence	42	LF		
GR-2 Steel Post Guardrail	108	LF		
GR-11 Guardrail End Treatment	4	EA		

GR-9 Guardrail Breakaway Terminal	1	EA		
Pavement Markings	1	LS		
	TOTAL BASE BID			$

The undersigned hereby acknowledges the receipt of the following addenda to the Contract Documents:

Addendum Number _____ Dated _____
Addendum Number _____ Dated _____
Addendum Number _____ Dated _____

The undersigned hereby agrees, if this bid is accepted by the City, to commence work with an adequate force and equipment on the date stipulated in the written "Notice to Proceed" from the Office of the City Engineer and to substantially complete the work within ninety (90) consecutive calendar days from the date stipulated in the written "Notice to Proceed", and to achieve Final Acceptance within thirty (30) consecutive calendar days thereafter, and to pay as liquidated damages the sum of three hundred Dollars ($ 300.00) per day to the City of Roanoke for each consecutive calendar day in excess of the time indicated to substantially complete the work as indicated above and then to reach Final Acceptance as set forth above to fully and satisfactorily complete the Work. (See Section 21 of the General Conditions.)

The Project and the work, services, and materials for such Project are subject to various VDOT, local, State, and/or Federal terms and provisions as set forth in or referred to in the bid documents and/or any resultant contract documents.

The Bidder, by submission of this bid, hereby certifies that such Bidder has read all of the bid documents and such Bidder is making the certifications contained in and/or referred to in the bid documents and agrees to be bound by such certifications. Such Bidder further agrees that Bidder, if awarded a contract for this Project, shall provide the work, services, materials, and any other items as required by the bid documents and in compliance with such bid documents, including, but not limited to, any VDOT documents, local, State, and/or Federal rules, regulations, and/or procedures contained in the bid documents and/or any resultant contract, or referred to therein. Furthermore, if there is any conflict in any of the documents, the more stringent provisions shall take precedence unless otherwise required by VDOT, Federal, and/or State documents, regulations, rules, and/or procedures, in which case they will take precedence in that order unless otherwise required by law.

Bidders are advised that any resultant contract will involve Federal and/or State and/or local funds and that the provisions of the Davis-Bacon Act, the Copeland Anti-Kickback Act, and Buy America provisions may apply to this Project. The Successful Bidder shall be required to comply with the applicable provisions of those Acts, including the applicable wage and record keeping provisions of such Acts, and by submitting a bid, such Bidder agrees to comply with the above items.

By submitting a bid, the undersigned agrees it will not withdraw its bid during the time period provided for in the Invitation to Bid, except as provided for therein.

The undersigned agrees that if this bid is accepted by the City, the failure or refusal of the undersigned to execute the Contract with the City and furnish to the City the required bonds and certificates of insurance within fourteen (14) consecutive calendar days from receipt of the Contract Documents may result in a payment of the Bid Security to the City as liquidated damages.

The attention of each bidder is directed to Code of Virginia, Sections 54.1-1100, et. seq., which requires certain licenses for contractors, tradesmen, and others. Each bidder is required to determine which license, if any, it is required to have under such sections.

Complete the following:

Bidder _____does have _____does not have a Virginia Contractor's License. (Check appropriate blank.)

If bidder has a Virginia Contractor's License, circle the class bidder has and list the number.
Licensed "Class A", "Class B", or "Class C" Virginia Contractor Number _____
Identify Specialty _____

If bidder has another type of Virginia License, please list the type and number:
Type of license: _____ Number: _____

Bidder is a ___ resident or ___ nonresident of Virginia. (Check appropriate blank. See Code of Virginia, Sections 54.1-1100, et. seq.)

The attention of each Bidder/Offeror is directed to Virginia Code Section 2.2-4311.2, which requires a bidder or offeror organized or authorized to transact business in the Commonwealth of Virginia pursuant to Title 13.1 or Title 50 of the Code of Virginia, as amended, or as otherwise required by law, shall include in its bid or proposal the Identification Number issued to such bidder or offeror by the Virginia State Corporation Commission (SCC). Furthermore, any bidder or offeror that is not required to be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why the bidder or offeror is not required to be so authorized. Please complete the following by checking the appropriate line that applies and providing the requested information:

A._____ Bidder/Offeror is a Virginia business entity organized and authorized to transact business in Virginia by the SCC and such bidder's/offeror's Identification Number issued to it by the SCC is _____.

B._____ Bidder/Offeror is an out-of-state (foreign) business entity that is authorized to transact business in Virginia by the SCC and such bidder's/offeror's Identification Number issued to it by the SCC is _____.

C._____ Bidder/Offeror does not have an Identification Number issued to it by the SCC and such bidder/offeror is not required to be authorized to transact business in Virginia by the SCC for the following reason(s):

_____

_____

_____

Please attach additional sheets of paper if you need more space to explain why such bidder/offeror is not required to be authorized to transact business in Virginia.

The undersigned states that it has made a best or good faith effort to seek the participation of and utilize local, Small, Minority-Owned, Women-Owned, and Service Disabled Veteran-Owned Businesses as suppliers and subcontractors whenever possible for this Project.

State the complete legal name of the bidder, exactly as it is recorded with the State Corporation Commission, if recorded there.

LEGAL NAME_____

BY_____ TITLE_____
(TYPED NAME:)

SIGNED NAME_____

DELIVERY ADDRESS_____

MAILING ADDRESS_____

CITY_____ STATE_____ ZIP CODE_____

TELEPHONE_____ FAX_____

CONTACT EMAIL ADDRESS _____

ESCROW ACCOUNT REQUESTED (if applicable): YES _____ NO _____

DELIVERY OF BIDS: See Section 7.1 of the Instructions to Bidders.

Monica Cole, Senior Buyer
Purchasing Division
215 Church Avenue, S.W.
Room 202, Noel C. Taylor Municipal Building
Roanoke, Virginia 24011

Place in lower left-hand corner of envelope the project title and ITB No. as indicated below . Place in the upper left-hand corner of the envelope the bidder's name and mailing address.

CONNECTION OF GARDEN CITY GREENWAY
TO ROANOKE RIVER GREENWAY
ROANOKE, VIRGINIA
ITB NO. 16-06-01

SECTION 2450

MICROPILES

PART 1 - GENERAL

1.1 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

1. ASTM INTERNATIONAL (ASTM)
   a. ASTM A252 (1998; R 2002) Welded and Seamless Steel Pipe Piles
   b. ASTM A 775 Epoxy Coated Steel Reinforcing Bar
   c. ASTM C 33 (2003) Concrete Aggregates
   d. ASTM C 109/C 109M (2005) Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)
   e. ASTM C 150 (2005) Portland Cement
   f. ASTM C 494/C 494M (2005) Chemical Admixtures for Concrete
   g. ASTM C 144 (2004) Aggregate for Masonry Mortar
   h. ASTM D-1143 (2009) Deep Foundations Under Axial Compressive Loading
   i. ASTM D-3689 (2007) Deep Foundations Under Axial Tensile Loading

2. AMERICAN PETROLEUM INSTITUTE (API)
   a. API Spec 5CT (2005) Casing and Tubing
   b. API RP 13B-1 (2003) Standard Procedure for Field Testing Water-Based Drilling Fluids

1.2 SUMMARY

A. This work shall consist of furnishing and installing micropiles as shown on the Plans, specified herein, and as directed by the Engineer. Work also includes survey/layout and record keeping of the micropile installation in conformance with these specifications. The contractor shall become familiar with the site and review the soil borings obtained in the immediate vicinity of the proposed micropiles, the locations of which are shown on the drawings, and the laboratory testing performed on select samples. The contractor shall be prepared to advance the micropiles a minimum of 5 feet into competent rock. The contractor shall be prepared to install the micropiles through boulder soil over bedrock and in locations where bedrock is exposed at the bottom of footing elevation. The contractor shall be prepared to advance the micropiles through rock which is pinnacled at the surface, contains near vertical fracture planes, and varies from a highly weathered condition to 20 ksi compressive strength. The contactor shall be prepared to advance the micropiles through both Granulite and Dolomite bedrock.

1.3 SUBMITTALS

A. Evidence of the specially contractor's previous micropile drilling and grouting experience for successful installation of a minimum of 50 micropiles in at least 3 projects of similar

length and similar ground conditions for this project within the last two years. Evidence of the experience of the superintendent to complete the work indicating installation of at least 25 micropiles seated into rock within the last two years.

B. A detailed description of the construction procedure including sequencing, drilling methods and equipment, assembly of casing, grouting procedures and pressures, quality control measurements made to assure consistency between micropiles and consistency in materials used, and means of disposing of excess drilling fluids and grout. Equipment specification including operating dimensions and procedures used to hold the specified alignment when uneven rock or boulders are encountered.

C. The contractor shall submit details of the both the static compression and tension load test setup including a drawing of the apparatus showing the location of dial gages, reference beams, and reaction frame. The submittal shall include calculations verifying the capacity of the reaction frame and means of resisting the applied force are sufficient to safely withstand both the ultimate tension and compression test loads specified herein. Calibrations within the last 6 months shall be submitted for jacks, load cells, and measuring devices.

D. Material Certification

1. Pipe Casing: ID, OD, minimal thickness, yield strength. (mill test reports or coupon testing shall be submitted)
2. Pipe Casing Threaded Connection: rated load for both tension and compression
3. Reinforcing Steel: size, yield strength, coatings
4. Grout: submit grout mix formula along with trial batch test reports. The trial batch mix shall include any admixtures to be used in the production mix. The time between mixing the trial batch and casting the samples shall be representative of the maximum time between batching and installation of the grout to be used during construction.

E. Test Reports

1. Installation Records
2. Grout Strength Test Results

PART 2 - PRODUCTS

2.1 MATERIALS

A. Admixtures of Grout

1. Admixtures shall be in accordance with ASTM C 494/C 494M. Admixtures that control bleed, improve flowability, reduce water content, and retard set may be used in the grout, subject to the review and acceptance of the Engineer. Admixtures shall be compatible with the grout and mixed in accordance with the manufacturer's recommendations and shall be added during the trial batch testing.

B. Cement

1. All cement shall be Portland cement conforming to ASTM C 150 Types II, III or V.

C. Centralizers and Spacers

1. Centralizers and spacers shall be fabricated from schedule 40 PVC pipe or tube, steel, or material non-detrimental to the reinforcing steel. Wood shall not be used. Centralizers and spacers shall be securely attached to the reinforcement; sized to position the reinforcement within ½ inch of plan location from center of pile; sized to allow grout tremie pipe insertion to the bottom of the drillhole; and sized to allow grout to freely flow up the drillhole and casing and between adjacent reinforcing bars.

D. Water

1. Water used in the grout mix shall be potable, clean, and free from substances that may be injurious to cement and steel.

E. Aggregate

1. Sand shall conform to ASTM C 144. Aggregate shall conform to ASTM C 33

F. Grout

1. Neat cement or sand/cement mixture with a minimum 28-day compressive strength of 4 ksi and conforming to ASTM C 109/C 109M.

G. Permanent Casing Piping

1. Shall be API N-80 pipe meeting the Tensile Requirements of ASTM A252,API Spec 5CT or Grade 3, except the yield strength shall be a minimum of 60 ksi.
2. The pipe shall have an OD of 7.5" (+/- 0.25 inches) and shall have a minimum wall thickness of 0.25 inches.
3. Shall be new or "Structural Grade" (a.k.a. "Mill Secondary") steel pipe meeting the above requirements, free from defects (dents, cracks, tears). Two coupon tests shall be provided for pipe without Mill Certification.
4. Threaded joints shall develop an ultimate load transfer of 90 kips in compression and in tension.

H. Reinforcing Bars

1. Reinforcing steel shall be epoxy coated deformed bars size #11 in accordance with ASTM A 615/A 615M Grade 60, ASTM A 775 or as specified on the drawings. Epoxy Coatings shall have a minimum thickness of 0.3mm and be applied electrostatically to the reinforcing steel. Epoxy coating shall be in accordance with ASTM A775.

PART 3 - EXECUTION

3.1 MICRO PILE INSTALLATION

A. The contactor shall submit the specific installation procedures for installing the micropiles prior to starting work. Installation of micropiles shall be performed in the presence of the Design Geotechnical Engineer.

1. Drilling

a. The contractor shall determine the specific method of drilling, however, it shall be prepared and capable of using rotary procession duplex drilling. Single tube external flush drill techniques shall not be utilized. The use of air or drilling fluids shall be controlled to minimize heave, erosion, and damage to the adjacent embankment or surrounding soils. Drilling equipment shall be suitable for drilling through the subsurface conditions at the site without damage to the adjacent structure. Methods shall be suitable to drill through clayey and sandy soil with boulders, and into competent bedrock. Changing of the specific method of drilling due to difficult ground conditions will not be grounds for additional payment. The drilling equipment shall be capable of drilling and grouting to a depth of 50 feet. Temporary casing shall be advanced the full length of the micro pile and the drill bit shall be of sufficient size to obtain the minimum diameter shown on the drawings for the full length of the bond zone. The micropile shall be drilled the minimum length into rock as indicated on the drawings. Final tip elevation will be determined by the Engineer during construction and will be governed by drilling the required bond zone in competent rock as indicated by drilling response (e.g., hammer sound, penetration rate, etc.) and by the presence of gray to white drill cuttings. The Engineer will determine when competent rock requirements have been satisfied. Open-hole drilling using mineral slurries shall not be permitted.

2. Grouting

a. The contractor shall pressure grout the micropile as the casing pipe is extracted to develop the specified bond length in rock shown on the drawings. Grout shall be pumped to the bottom of the casing through drill stem or tremie tube. The reinforcing steel shall be inserted to the bottom of the micropile and centered within the casing and drilled hole. Subsequent plunging of the casing is not required. Grout pressures and volumes shall be measured at the pile head and recorded as the casing is extracted. Grouting shall be performed the same shift that the bond length is drilled. The casing shall be left in place to the top of rock elevation. Grout placed during pile installation shall fill the casing a minimum of 12 inches above existing grade or as indicated on the drawings. Upon completion, the casing shall be capped under pressure until the grout has set. Grouting equipment shall be of sufficient size to permit grouting in a continuous operation and within one hour of the start of grouting. Extended grouting periods shall not be permitted without supporting grout strength testing. Two sets of three grout cubes shall be

cast and tested per day of work with a minimum of one set for each pier. Grout density and viscosity shall be measured at a frequency of one test per pile. Grout sampling and testing shall be the responsibility of the Contractor.

3. Structural Connections
   a. After installation and grouting of the micropile, grout adhering to the exposed surfaces shall be chipped off such that the footing concrete can bond directly to the exposed reinforcing steel and casing.

3.2 INSTALLATION RECORD

A. The contractor shall submit a record for each pile. Reports shall include all relevant items used as part of the contractor's quality control. At a minimum, reports shall include:

1. Pile #
2. Date
3. Superintendent's name
4. Start and stop time of drilling and grouting
5. Casing size, length, and number of joints
6. Drill bit type and size
7. Grouting pressures and volumes
8. Length of hole and bond length
9. Grout density and viscosity
10. Relevant observations or adjustments made during the installation

3.3 TOLERANCES

A. Micropile construction tolerances are as follows:

1. Center line of piling shall not be more than 1.5 in. from specified Plan location.
2. Piles shall be within 2 percent of the specified batter.
3. Top elevation of piles shall not be lower than that specified on the drawings.
4. Joint connections shall not permit eccentricities or kink angles.

B. When micropiles are installed with dimensions outside of the specified tolerances, with grout not conforming to the specified strength, or with any other nonconforming condition, the Engineer will make a determination regarding the proper corrective measures to be taken.

C. Corrective measures may include the removal and replacement of defective micropiles, the installation of additional micropiles at nearby locations, the modification of the foundation over the micropiles, or other measures the Engineer deems appropriate. Required corrective measures shall be implemented at no additional cost to the City.